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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,651	10/24/2003	Figen Cetin	Q78088	7630
23373	7590	11/26/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER MUI, GARY	
			ART UNIT	PAPER NUMBER
			2616	
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			11/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,651

Applicant(s)

CETIN ET AL.

Examiner

Gary Mui

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

The disclosure should be describing the claims not vice versa. Throughout the disclosure this occurs; for example on page 1 discloses "The present invention relates to a method for traffic engineering as is described in the non-characteristic part of claim 1, and to an ingress router as is described in the preamble of claim 9.", where the language of claim 1 or 9 can change dramatically as in this case where claim 9's preamble has since been changed. Also the specification should include section headings.

Appropriate correction is required.

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1 – 4, 9 - 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Washabaugh et al. (US 7023856).

Washabaugh et al. disclose, regarding claim 1, Method for engineering traffic

between an ingress router (see Figure 3, Box 330, Ethernet Switch/Router) and an egress router (see Figure 3, Box 312 Communications Network, it is inherent that there is an egress router in the communications network) of a packet network (see Figure 3, Box 312, Communications Network), the traffic being scheduled within the ingress router in queues pertaining to different service classes (see column 4, lines 49 – 50), the method further including a step of determining a part of the traffic which will follow a dedicated tunnel between the ingress and the egress router

characterized in that the method includes the provisioning of a tunnel queue dedicated to the part of the traffic intended to flow via the dedicated tunnel, for separately and temporarily storing the part of the traffic towards the dedicated tunnel (see column 4, lines 16 – 19, wherein VC1, VC2, VC3 correspond to dedicated tunnel, column 6, lines 46 – 52, wherein queues 652A, 652B, 652C, and 652D correspond to tunnel queues)

the method further includes a step of shaping the part of the traffic towards the dedicated tunnel before entering in the traffic tunnel (see column 9, lines 55 – 56, column 10, lines 16 – 20, wherein the queue specific counter corresponds to shaping traffic because it is used to limit the traffic output from the specific queue);

regarding claim 2, the method includes the provisioning of a set of tunnel queues , associated to the dedicated traffic tunnel, each tunnel queue within the set pertaining to a different service class (see column 6, lines 9 – 12, wherein class A, B, C , D correspond to different service class, lines 46 – 52, wherein class-specific queues 652A, 652B, 652C, 652D correspond to a set of tunnel queues associated to dedicated traffic tunnel);

regarding claim 3, to each tunnel queue of the set a separate shaper is provided for shaping the traffic from the each tunnel queue of the set (see column 9, lines 55 – 56, column 10, lines 16 – 20, wherein the queue specific counter corresponds to a separate shaper because it is used to limit the traffic output from the specific queue);

regarding claim 4, the set of tunnel queues is associated to a plurality of dedicated traffic tunnels, pertaining to the same egress interface of the ingress router (see Figure 6, Box 652A, 652B, 652C, 652D, Box VC1, Box VC3, Box 648 PHY);

regarding claim 9, Ingress router of a packet network (see Figure 3, Box 330 Ethernet Switch/Router, Box 312 Communications Network), the ingress router being adapted to route packets within the packet network to an egress router of the packet network via at least one dedicated tunnel to the egress router (see Figure 3, Box 330, Ethernet Switch/Router, Box 312 Communication Networks, Box 338 VC1, wherein Ethernet Switch/Router corresponds to ingress router, Communication Networks correspond to the packet network, VC1 corresponds to a dedicated tunnel, it is inherent that an egress router connects to VC1 in the communication networks), the ingress router including at least one plurality of queues pertaining to different service classes (see column 6, lines 46 – 52), the ingress router being adapted to temporarily store incoming packets within one of these queues, on the basis of their service class and on the basis of their destination (see column 6, lines 1 – 3, lines 46 – 52, wherein CA associated with a variable-length packet corresponds to storing packets based on their destination, wherein the packet classifier determines the class each packet belongs and class-specific queues corresponds to storing packets based on their service class) characterised in that

the ingress router further includes at least one tunnel queue dedicated and associated to the at least one dedicated tunnel (see column 6, lines 46 – 56, wherein queues 652A, 652B, 652C, 652D correspond to tunnel queue dedicated and associated with one dedicated tunnel VC1, Figure 6 Box 652A, 652B, 652C, 652D)

the ingress router is further adapted to temporarily store part of the incoming packets within the at least one tunnel queue within the ingress router (see column 7, lines 36 – 38),

whereby the ingress router further includes at least one tunnel shaper associated to the at least one dedicated tunnel, and adapted to shape the traffic of the at least one dedicated tunnel (see column 9, lines 55 – 56, column 10, lines 16 – 20, wherein the queue specific counter corresponds to a separate shaper because it is used to limit the traffic output from the specific queue);

regarding claim 10, the ingress router further includes at least one set of tunnel queues, pertaining to different service classes, and associated to the at least one dedicated tunnel (see column 6, lines 46 – 52, Figure Box 644, wherein queues 652A, 652B, 652C, 652D correspond to a set of tunnel queues, pertaining to different service classes, and associated to tunnel VC1);

regarding claim 11, the ingress router further includes at least one set of tunnel shapers associated to the at least one dedicated tunnel (see column 9, lines 55 – 56, column 10, lines 16 – 20, wherein the queue specific counters correspond to a set of tunnel shapers);

regarding claim 12, the at least one set of tunnel queues pertaining to different service classes, is associated to a plurality of dedicated tunnels pertaining to the same egress interface of the ingress router (see Figure 6, Box 652A, 652B, 652C, 652D, Box VC1, Box VC3, Box 648 PHY);

Claim Rejections - 35 USC § 103

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5 – 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Washabaugh et al. in view of Goguen et al. (US 6665273).

Washabaugh et al. disclose, regarding claim 5, all the subject matter of the

claimed invention as recited in paragraph 6 of this office action.

Washabaugh et al. fail to teach the method includes a step of monitoring the traffic via the dedicated tunnel, a step of comparing the result of the monitoring with a reserved bandwidth for the dedicated tunnel, and, depending upon the result of the comparison, a step of informing a network administrator by sending a message to the network administrator.

Goguen et al. from the same or similar field of endeavors teach a step of monitoring the traffic via the dedicated tunnel, a step of comparing the result of the monitoring with a reserved bandwidth for the dedicated tunnel (see column 8, lines 54 – 57), and, depending upon the result of the comparison, a step of informing a network administrator by sending a message to the network administrator (see column 8, lines 57 – 60, wherein the TE module corresponds to a network administrator and it is inherent the TE module and the comparator communicates through messaging).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use a step of monitoring the traffic via the dedicated tunnel, a step of comparing the result of the monitoring with a reserved bandwidth for the dedicated tunnel, and, depending upon the result of the comparison, a step of informing a network administrator by sending a message to the network administrator in the method taught by Washabaugh et al. in order to allow sufficient allocation of resources to service the tunnel (see column 6, lines 60 – 61).

Claims 6, 13 are reject the same reason as above.

Regarding claim 7, Goguen et al. disclose upon receipt of a message indicating that the traffic through the dedicated tunnel, respectively the plurality of dedicated tunnels, exceeds a predetermined value, the network administrator increases the reserved bandwidth (see column 8,

lines 54 – 62), whereas a new path or paths are calculated for the dedicated tunnel, respectively the plurality of dedicated tunnels, between the ingress router and the egress router (see column 8, lines 1 – 3).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the ingress router is further adapted to receive a predetermined message from the network administrator related to the enabling of the at least one tunnel queue or the set of tunnel queues, and to determine therefrom whether or not to enable the at least one tunnel queue for receiving packets intended to the at least one dedicated tunnel in the method taught by Washabaugh et al. in order to allow increased efficiency of system resources.

Response to Arguments

3. Applicant's arguments filed September 10, 2007 have been fully considered but they are not persuasive.

In response to the remarks on page 10 – 11, in particular that the Washabaugh reference fails to teach or suggest "determining a part of the traffic which will follow a dedicated tunnel between said ingress router and an egress router" and "provisioning a tunnel queue dedicated to said part of the traffic intended to flow via said dedicated tunnel, for separately and temporarily storing said part of the traffic towards said dedicated tunnel,". The examiner respectfully disagrees. The Washabaugh reference teaches a virtual circuit (dedicated tunnel) which is then split into various traffic classes (class A, class B, class C, and class D) (see figure 4). The incoming traffic is classified into its class type where then the class A, B, C, D

part of the whole traffic is transmitted through the VC (see column 5 line 49 – column 6 line 24). Therefore, claims 1 – 4 and 9 – 12 are rejectable under Washabaugh.

In response to the remarks on page 12, in particular that Goguen reference fails to disclose the feature the network administrator. However in figure 6 shows a network device 600 that can be construed to be the network administrator. The TE module contained in the memory portion of the router and when executed will cause the network administrator duties to be performed (see column 7 lines 16 – column 8 line 13). Therefore, claims 5-7 and 13 are rejectable over Washabaugh in view of Goguen.

4. Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. Claims 8 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Washabaugh and Goguen as applied to claims 1 and 9 above, and further in view of Mauger (US 6,522,627 B1).

For claim 8, Washabaugh and Goguen teaches all of the claimed subject matter with the exception of provisioning the tunnel queue is dependent upon the sending, by the network administrator, of a message enabling the method. Mauger from the same field of endeavor teaches an engineering tunnel is permanent or semi-permanent entity that is set up across a number of network nodes, but which does not in general provide a complete end to end route across the network. A user tunnel is temporary entity that is set up within an appropriate

number of engineering tunnels to provide end to end connectivity for the duration of a network transaction, (see column 4 lines 7- 15). Therefore, it would have been obvious to one skilled in the art at the time of the invention to set up (enable) the tunnel as taught by Mauger from the messages sent by Goguen. The motivation for doing this is to facilitate routing of packet so that the node can allow a packet to pass through the tunnel without need to know the destination.

For claim 14, Washabaugh and Goguen teaches all of the claimed subject matter with the exception of the at least one tunnel queue is enabled based on a determination as to whether or not to enable said at least one tunnel queue to receive packets intended for said at least one dedicated tunnel, said determination made from a predetermined message received from said network administrator, said message related to the enabling of said at least one tunnel queue. Mauger from the same field of endeavor teaches an engineering tunnel is permanent or semi-permanent entity that is set up across a number of network nodes, but which does not in general provide a complete end to end route across the network. A user tunnel is temporary entity that is set up within an appropriate number of engineering tunnels to provide end to end connectivity for the duration of a network transaction, (see column 4 lines 7- 15). Therefore, it would have been obvious to one skilled in the art at the time of the invention to set up (enable) the tunnel as taught by Mauger from the messages sent by Goguen. The motivation for doing this is to facilitate routing of packet so that the node can allow a packet to pass through the tunnel without need to know the destination.

Conclusion

6. **Examiner's Note:** Examiner has cited particular paragraphs or columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Mui whose telephone number is (571) 270-1420. The examiner can normally be reached on Mon. - Thurs. 9 - 3 EST.

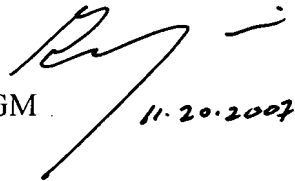
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

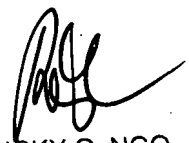
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GM 11.20.2007


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER